State of Hawaii Department of Taxation
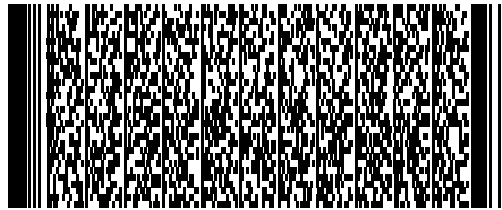## Questions and Answers for 2D Barcodes

Starting with the 2007 tax year, DOTAX will support the processing of 2D barcodes produced on the N11 return. The following provides some questions and answers regarding this subject.

The detailed specification for creating 2D barcodes can be found the document titled "N11 General Information and Scannable Specification".

Questions and Answers for Software Vendors Regarding 2D Barcodes

Q: What is a 2D barcode?

A: 2D means two dimensional. 2D barcodes can contain more information than conventional one dimensional barcodes. All of the form data can be captured in a single barcode.

An example 2D barcode looks like this:

Q: What forms are supported?

A: For 2007 tax year forms the N11 (and associated Schedule CR) will be supported. It is likely that other income forms will be supported in 2008.

Q: What is the benefit to software vendor's customers (taxpayers)?

A: The first benefit is accuracy in processing their paper return. If the 2D barcode is read, then it eliminates the possibility of data entry mistakes for the return. The second benefit is speed in processing their paper return. Paper returns with a 2D barcode will be processed faster through the DOTAX system.

Q: What are the technical specifications for the barcode?

A: The type of 2D barcode is a standard PDF417. The technical specifications are posted in the document titled "N11 General Information and Scannable Specification".

Q: Who should I contact if I have questions about the 2D barcode specifications?

A: Please contact Beverly Dias – Email: beverly.j.dias@hawaii.gov, Telephone: (808) 587-9193

Questions and Answers from the 2D Barcode Specifications

Q: In the barcode layout document, for field #2 Software Developer Code– Is there an application process for an HI DOTAX assigned software developer code?

A: This field is for the two digit Hawaii Vendor ID number as listed in N11 Scannable Specifications document. If your company does not currently have an assigned Hawaii Vendor ID number, then please contact the Forms Coordinator whose contact information is provided in the N11 Scannable Specifications document.

Q: In the barcode layout document, for field #3 Form Number – Has a max. length of 6; the field is to be populated with "N11"; should this be "000N11", "N11000", or should the field size be changed to a max length of 3 since it will always be N11 on this form?

A: Please enter "N11", the max field size of 6 was used just to be consistent with the Federation of Tax Administrators (FTA) recommended format for the barcode header, but we are not currently using the additional 3 characters. The max field size column indicates the maximum size for each field and the data should not exceed this length; but the fields are not fixed length so you do not need to pad the data to reach this maximum size.

Q: In the barcode layout document, for field #6 Software Version – Should this be "V1" for "Version 1"?

A: This can be any value you want to use to track the version of your software used to generate the barcode. The field has a max width of 2, so "V1" would be OK.

Q: In the barcode layout document, when the Field Business Rule says "0 if no value", do you want a zero or do you want this item left blank?

A: When the Field Business Rule says "0 if no value", please enter 0 if there is no value. The field should not be null (blank). When the Field Business Rule says "Null if no value", then the field should be null (blank) if there is no value.

Q: In the barcode layout document, there are form line numbers referenced that don't match the return?

A: In the draft we had added line numbers for fields that don't have line numbers on the return (for example we added line #6ab as the reference for the Number of Primary Spouse Exemptions). We thought this would be useful to help match the barcode fields that don't have separate line numbers to its location on the form, but it caused confusion in some cases. We updated the final 2D barcode layout so that fields which are not associated with a line number show '- -' as the line number. Then in the Description column for the field we added text to help explain the location of the field.

Q: There is a checkbox field between 6b and 6c for Married Filing Separate and spouse being claimed as an exemption (including 65 and over exemption). However, this box is not accounted for in the 2D barcode layout document. And, it is not listed in "Return Fields that are NOT Included in the 2D barcode" section. It seems like it should be listed in one of the two places.

A: Thanks, we had missed that field in the draft, the field has been added to "Return Fields NOT included in the 2D barcode" section.